

In the Claims:

1. (Currently Amended) A method for mapping data to a multi-spline model of a body organ, thereby to allow simulated tool interaction with said organ, the data being expressed in spatial coordinates, the method comprising:

constructing said multi-spline model from a single multi-spline tree ~~from~~ of a plurality of splines, said constructing comprising:

determining a root node;

determining a distance between a new spline and existing splines in said tree;

locating said new spline on a branch of said tree, in an appropriate location with regard to a time parameter of said new spline; and

expanding said branch according to a derivate of said branch and said new spline; the method further comprising:

converting a spatial coordinate of the data to a time-based coordinate;

and

mapping each point of the data to a point on said multi-spline model at least partially according to said time-based coordinate.

2. (Previously Presented) The method of claim 1, further comprising:

determining a location in the data by navigating through said multi-spline model; and

transmitting at least a portion of the data according to said location.

3. (Previously Presented) The method of claim 1, wherein said multi-spline tree features a plurality of nodes, and each of said nodes comprises a spline.

4. (Previously Presented) The method of claim 3, wherein a child spline of each spline maintains a path of said spline with continuity.

5. (Canceled)

6. (Previously Presented) The method of claim 4, wherein said determining said root node, determining said distance, locating said new spline and expanding said branch are repeated until a goal is reached.

7. (Previously Presented) The method of claim 1, wherein said goal comprises attaching said new splines to said tree.

8. (Previously Presented) The method of claim 1, wherein said mapping further comprises:

assigning each said point of said data to a branch on said multi-spline tree; and
determining correct parameters for each said point of said data.

9. (Previously Presented) The method of claim 8, wherein said determining correct parameters comprises determining the time on said spline at said point, the angle around said spline at said point and the radius between said point and said spline at said time.

10. (Previously Presented) The method of claim 9, wherein said determining further comprises selecting a solution wherein said radius is minimal.
11. (Previously Presented) The method of claim 7 further comprising applying a Path Binding Transform.
12. (Previously Presented) The method of claim 1, wherein said data comprises X-ray simulation data.
13. (Previously Presented) The method of claim 1, wherein said data comprises three dimensional data, wherein said three dimensional data is represented in XYZ coordinates and can be analyzed according to time.
14. (Previously Presented) The method of claim 13, wherein said three dimensional data comprises at least video data.
15. (New) A method for rapid transfer of data with a multi-spline model to allow use of said multi-spline model over a network, the data being expressed in spatial coordinates and having a time dimension, the method comprising:
 - constructing a single multi-spline tree from a plurality of splines, said constructing comprising:
 - determining a root node;
 - determining a distance between a new spline and existing splines in said tree;

locating said new spline on a branch of said tree, in an appropriate location with regard to a time parameter of said new spline, said time parameter being in said time dimension; and

expanding said branch according to a derivate of said branch and said new spline; the method further comprising:

converting a spatial coordinate of the data to a time-based coordinate including said time dimension;

mapping each point of the data to a point on said multi-spline model at least partially according to said time-based coordinate; and

transmitting only spatial data that is mapped to a relevant time, said relevant time being required by a user of a networked computer, to said user.